

# INDICATIVE VARIABLES OF ATTRITION: APPLICATION OF DELPHI TECHNIQUE

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## Abstract

Corporate leaders are puzzled with conditions like, attrition, retention, talent management, absconding etc. A unique situation happening in many organizations like the employees just abscond from the work. Absconding is a willful action where an employee leaves an employer without notice due to several push and pull factors in the workforce. A qualitative study through Delphi Technique was conducted to analyze the factors that contributing to absconding issues in one of the manufacturing firm belongs to the aerospace industry in Malaysia. The study identified 21 major categories under the theme attrition, acting as major indicators. These indicators are further cross examined with the support of triangulation technique case study, focus group discussion and interviews of qualitative research. These collective observations followed by the researcher's further pinpoint once again the 21 factors which were identified through Delphi. Thus this research and observations pass the criteria of validity and reliability in qualitative research. The study provides better insight into the indicative variables of attrition, with specific to the an aerospace industry firm in Malaysia

**Key Word:** Attrition, Aerospace Industry, Employees, Organisational Factors, Individual Factors

## 1. Aerospace industry

Becoming a surprised factor, there is significant growth in the aerospace market during the last 5-6 years and it is anticipated to reach \$301 billion in 2018 with a worldwide growth rate of 5.1% for the next couple of years. The decisive success factor for aerospace market is the growing requirement in

developing countries. There is a drastic change we can observe here is that the majority successful companies will be those that can develop application specific, customer-focused solutions and support their customers in making provision of their requirement by achieving their strategic-long term objectives.. The commercial aerospace industry cycle continues to be supported by a record order backlog, rising passenger traffic, especially in emerging markets, and some acceleration in global economic growth in early 2013. In contrast, the fundamental backdrop is getting more difficult in the defense sector, as U.S. federal budget cutbacks lead to declining contractor revenues for the next several years. It has been reported that air traffic is distinguished by means an annual growth rates comprised between 5% and 6% since the middle of the 1980s (ICAO, 2007). This escalation, strictly be a sign of the difference, compared to other economic sectors, which are likely to sustain in the coming years. Further it is augmented that almost same trend will be anticipated in the coming twenty years (Airbus, 2007; Boeing, 2009).

### ***1.1 Big players in aerospace market***

It is estimated that the global aerospace manufacturing industry makes more than \$700 billion in annual revenue. France, Canada, the UK, and the US are the major countries are the dominant player in the aerospace manufacturing market. Even though when you compare with other global players, it is well acknowledged that America and Europe are the largest markets, in the context of sales of aerospace products. It is also predicted that the Asia-Pacific regions will avail of the greatest opportunities in this sector in the coming years. Majority companies in the aerospace industry produce aircraft, aircraft parts, and armaments and space vehicles. Major companies in this category include Boeing, General Dynamics, Lockheed Martin, Northrop Grumman, and Raytheon, as well as the Netherlands-based EADS, BAE Systems (UK), Bombardier (Canada), and Finmeccanica (Italy). The system of subcontracting still exists in the aerospace industry. Many companies work as subcontractors to bigger players in the market. Though it is the scenario, commercial jet aviation market is controlled by two big market players, U.S. aircraft manufacturer Boeing and the European aircraft maker Airbus.

### ***1.2 Challenges of aerospace industry***

Boeing and Airbus entered the ongoing recessionary period with a considerable backlog of undelivered aircraft on their books (Airbus recorded a backlog of 3,715 and Boeing 3,714) (Joseph, 2009). These two firms are widely reported as profitable companies by extending new aircraft to their airline and/or leasing firm customers. Boeing displayed incomes of \$60.9 billion and Airbus detailed incomes of \$38.7 billion in 2008. Nonetheless, the recession is affecting both producers. In 2008, net orders fell for both Boeing and Airbus (see Table 1). For the first three quarters of 2008, Airbus and Boeing received total new orders of 785 airplanes and 625 airplanes, respectively (SpeedNews, 2009). For the same period in 2009, these numbers have dropped to 149 and 181. There are expectations both firms will have to significantly reduce their aircraft production rates at some point to correspond with this decrease in new orders. By one view, there is a growing supply of surplus aircraft in this market sector and it will take years for this surplus to be absorbed by a global airline industry currently operating at reduced capacity (Anselmo, 2009). Aircraft orders have picked up in early 2013, rebounding from last year's mild slowdown and lifting the industry's order backlog to record highs. In particular, Airbus has a backlog of more than 5,000 aircraft — 8.5 years at 2012 production rates, nearly double the company's historical average of 4.5 years. This record backlog will support rising aircraft output even if the global economic environment becomes more challenging (Gomes, 2013). Related to many factors of this backlog, it has been pointed out that human factors are the more attention to be provided. Among the human factors the industry reported to have a high attrition rate.

### ***1.3 Profile Of The Company***

Asia Pacific Composite Manufacturing Sdn. Bhd.\* also known as APCM in short, manufactures composite material components and sub-assemblies for aircraft applications mainly for The Boeing Company based in the United States. Its products are can be used in civilian, defense, and space applications and currently is mainly for commercial Aircraft only. The company is located at Selengor, Malaysia. The company was founded in 1998 and the joint ventured partners are The Boeing Company, Hexcel Corporation, Naluri and Sime Darby. However, both the Malaysian's companies sold off their shares to focus on their main businesses and in 2011. APCM is equally owned by The Boeing Company and Hexcel Corporation where both are based in the United States. As of September 2012, the employment figure is eight hundred and eighty (880) and is expected to increase to one thousand five hundred (1500) in the next five (5) years.

### ***1.4 Challenges attrition industry***

In this case study, the investigators will focus on the people resources where Second Tier and below suppliers from the Aerospace industry is targeted (originally from either United States or Europe) which is now fast moving across the continent to Asia. The study seeks to discuss on retention issues of employees by understandings on the attrition rate. Resources ranging from materials to people posed a challenge to the industry in Malaysia in general, and the neighboring countries in particular. As in the past, Tier 2 and below suppliers are originally based out of the United States and Europe. Having most of the existing support is still out of the USA, this has increased the ordering and delivery lead time drastically. People skill and knowledge is definitely a challenge to the newly set-up companies in Asia including Malaysia. Many of the works are very manual compare to the other industries and therefore, skill metric becomes an important tool as a measurement of the workforce. Staff pinching although strongly discourage between companies but this is unavoidable as some skill-sets are very limited but necessary for the day-to-day running and operation of the business. The sudden boom in the aerospace industry is not only in Malaysia but the rest of the Asian countries including China, Vietnam and Thailand. Therefore, the scenario has created many career opportunities which is very positive for country GDP and advancement in the career for the skill and semi-skill employees. However, this posed a big challenge for the Corporation in their recruitment and more, to retain their existing employees. Similar to other industries, aerospace has a set of requirements to follow but with NADCAP, the company found the requirements is extremely strict and hence, compliance cannot be compromised or negotiated. NADCAP is the leading, worldwide cooperative program of major companies designed to manage a cost effective consensus approach to special processes and products and provide continual improvement within the aerospace industry and is the PRI's brand name in the industry-managed program for special processes in the aerospace industry. Not having the right people which are required by the various processes can result in shutting down or discontinue the operation and in such case the shipments immediately. Universities and colleges have started to include education and training in the aerospace field example University Kuala Lumpur but currently already short and not able to support the demand for engineers with the level of experience and exposures. To meet the needs and demand, most companies recruited the young engineers and put them on-job training (OJT) but these young engineers are looking at opportunity and have little loyalty to the companies. Every company knows they need to attract people and retain them as the cost of recruitment is also getting very high. This is where the study or research into employee retention is timely and critical as this can be the life-line of these companies and eventually not only able to stabilize the workforce and reduce cost of recruitments but risking to stop operation and delivery.

### ***1.5 Why people leave organizations?***

Many researchers have tried to answer this question, why employees leave organizations. (Bluedorn, 1982; Kalliath & Beck, 2001; Kramer, et al., 1995; Peters, et al., 1981; Saks, 1996). Some authors argued individual factors and some other related organizational factors. As such there is little consistency in their

observations and findings. This indicates that an exploration of the topic attrition factor to be made, contextualizing the scenario to the aerospace industry. Shaw, et al. (1998) informed about 1500 research studies on the subject (Nadiri & Tanova, 2010). Turnover intentions denote to one's intention to leave his employing organization which shows a breach in the relationship between employees and the organization (Cho, et al., 2009). Hellman (1997), further states that the turnover intention is the behavioral intention illuminating an individual's intention to leave the organization. Hom & Griffeth (1995) referred turnover intentions as a conscious and deliberate willfulness of an individual towards voluntary permanent withdrawal from the organization (Davoudi, et al., 2013). Turnover indicates a conflict in the relationship between individuals and the organization (Cho, et al., 2009).

Abreu and Valle (2000) refer to Herzberg's (1973) reasons for staff dissatisfaction within organizations that usually result in resignations, namely:

- Inadequate company policy and management;
- Dissatisfactory interpersonal relations with supervisors, colleagues and subordinates;
- Rigid (inflexible) technical supervision;
- Non-competitive salary levels;
- Threatened job security;
- Imbalance between work and personal life;
- Inadequate working conditions;
- Unsatisfactory work environment;
- No guarantees of future advancement;
- Lack of recognition by superiors with regard to activities performed.

Some of the reasons pointed out São Paulo, Brazil, Anselmi and Angerami (2005) also can be correlated to industries situated in far away towns and in villages like:

- Transfers to institutions in other cities;
- Family reasons, separation from the family to work in a city or town far from the family and the family not being able to move with them;
- Searching for better professional prospects, such as training and on-going development;
- Having to work a great deal of overtime;
- Non-remuneration for extra hours worked;
- Insufficient or inadequate working instruments;
- Delayed relief from duty by other teams;
- Better opportunities in other institutions;
- Personal reasons, including to look after the children, a sick or disabled spouse, or sickly or disabled parents; and
- The spouse having been transferred.

In 2007 the five main reasons (Halloran, 2007) why people left were identified as:

1. Managerial behavior (leadership);
2. Lack of opportunity;
3. Lack of learning;
4. Inequity in remuneration; and
5. Instability within the team.

## **2. Research methodology**

The methodology of research followed in this study was Delphi technique which provided exploratory insight into major factors of business incubation centers. The Delphi technique, (Dalkey and Helmer, 1963) is a widely used and accepted method for achieving convergence of opinion concerning real-world knowledge solicited from experts within certain topic areas. The Delphi technique is designed as a group communication process that aims at conducting detailed examinations and discussions of a specific issue for the purpose of goal setting, policy investigation, or predicting the occurrence of future events (Ulschak, 1983; Turoff & Hiltz, 1996; Ludwig, 1997). This research engaged semi-structured interviews. Based on the suitable time for the resource person interviews were arranged, during 2012 January to 2012 July. Telephonic interview is conducted to gather information from the respondents. 40 experts from the industry and academia were identified and approached by email or telephone and were invited to take part in the study. All the clarifications related to the objective of the study were made by the researcher. However, 30 respondents were being interacted and communicated, only 20 respondents shown their willingness to participate in the discussion. Finally, 20 participants were interviewed by telephone and through email. The conversations tape recorded, and manually analyzed. The procedural steps in adopting the Delphi technique were as follows.

### **2.1 Expert panel identification**

The group of professional was made from specialists having high knowledge and expertise in strategic attrition management. They are closely associated with industries as consultants, Top level HR managers, Professors, Researchers and Academicians. The specialized areas of these expert members include, 16 male members (80%) and 4 female members (20%). These dynamic groups of panel of experts are knowledgeable and familiar to give relevant opinions and an admissible understanding of the attrition in the aerospace industry.

### **2.2 Rounds**

#### **2.2.1. Round 1**

In the first round, the Delphi process usually initiates with an open-ended questionnaire. The open-ended questionnaire aids as the basis of obtaining specific facts and figures about a content area from the Delphi subjects (Custer, Scarcella, & Stewart, 1999).

The questions:

1. How do you define attrition?
2. How do you relate attrition in the aerospace industry?
3. Which are the major factors, in general closely related to attrition in the manufacturing sector?
4. Contextualizing the topic to the aerospace industry scenario, which are the major factors, closely related to attrition in the aerospace industry in Malaysia?

#### **2.2.2. Round 2**

In the second round, each Delphi member receives a second questionnaire and is asked to review the items summarized by the investigators based on the information provided in the first round. Accordingly,

Delphi panelists may be required to rate or rank-order items to establish preliminary priorities among items. Because of round two, areas of disagreement and agreement are identified (Ludwig, 1994). In this round, consensus begins forming and the actual outcomes can be presented among the participants' responses (Jacobs, 1996). Information regarding the influential factors of attrition in the aerospace industry was collected from the respondents. The process identifies 203 categories, under 43 factors, which were having 613 items with high and low proximity of attrition in the aerospace industry was identified. Rating process further identified in the categories and items identified.

### 2.2.3. Round 3

In the third round, each Delphi panelist obtains a questionnaire that comprises the categories and items ratings, summarized by the investigators in the previous round and are asked to revise his/her judgments or "to specify the reasons for remaining outside the consensus" (Pfeiffer, 1968). This round gives Delphi panelists an opportunity to make further clarifications of both the information and their judgments about the relative importance of the categories and items. Second level screening of the 203 categories which were having a high and low influence on attrition in the aerospace industry was subjected to further deliberation and consensus. The process further identified 151 categories, which are having high and low proximity of the attrition in the aerospace industry. Classification of the items in 151 categories of 30 factors was being made with appropriate loaded items. Thematic presentation and the categorization of the items were done.

### 2.2.3. Round 4

In the fourth and often final round, the list of remaining items, their ratings, minority opinions, and items achieving consensus are distributed to the panelists. This round provides a final opportunity for participants to revise their judgments. It should be remembered that the number of Delphi iterations depends largely on the degree of consensus sought by the investigators and can vary from three to five (Gustafson, 1975; Ludwig, 1994). During third level, screening of the 87 categories under 21 factors which were having 182 items with high and moderately high proximity of the attrition in the aerospace industry was identified. Sought the expert opinion on the appropriateness of the core factors selected for the study.

## 3. Results

**Table No 1: Delphi Table on Attrition**

<b>Attrition Factors No: S/N</b>	<b>Factors</b>	<b>Categories</b>	<b>No. Items</b>	<b>No of Experts (N=20)</b>	<b>% of Experts</b>
<b>1</b>	<b>Career Promotion</b>	Career Plan	2	16	80%
		Career Opportunities	2	16	80%
		Level Career Orientation	2	15	75%
		Career Hope	1	16	80%
<b>2</b>	<b>Reward Management</b>	Salary/Wage	2	18	90%
		Perks and Commission	2	15	75%
		Bonus	1	18	90%
		Allowances	2	15	75%
<b>3</b>	<b>Training &amp; Development</b>	Opportunity for Professional Development	2	17	85%

		Opportunity For Personal Development	3	17	85%
<b>4</b>	<b>Management Style</b>	Leadership Style	2	18	90%
		Employee Orientation	2	16	80%
		Work Orientation	2	17	85%
		Organizational Support	1	15	75%
<b>5</b>	<b>Insufficient Challenge</b>	Variety	2	16	80%
		Innovation	2	18	90%
		Experimentation	2	18	90%
		Skill Enhancement Opportunity	2	16	80%
<b>6</b>	<b>Conditions of Service</b>	Terms and Conditions	2	18	90%
		Rigid Rules and Regulation	2	18	90%
		Feeling of Insecurity	2	16	80%
		Lack of Interest	3	16	80%
		Detachment from Work	3	17	85%
		Detachment from Organization	3	17	85%
		Detachment Between Colleague	3	17	85%
<b>7</b>	<b>Flexibility in Working Hours</b>	Rigid Working Hours	2	18	90%
		Long Working Hours	3	18	90%
		Over Work	3	17	85%
		Lack of Rest	3	16	80%
		Lack of Support Activities among Colleague	3	16	80%
<b>8</b>	<b>Work condition</b>	Issues on Physical health	2	17	85%
		Hazardous Chemical Use	2	16	80%
		Long standing work	2	16	80%
		Lack of Rest	2	15	75%
<b>9</b>	<b>Travelling</b>	Long Journey to Reach at Work	2	17	85%
		No Transport Facility From Organization	2	17	85%
		No Frequent Transport Facility in general	2	17	85%
<b>10</b>	<b>Health Facilities</b>	No medical facility	2	17	85%
		Long Distance to Access Medical Facility	2	16	80%
		Neglect from management	2	17	85%
<b>11</b>	<b>Nature of Work / Job Satisfaction</b>	Repetitive Work (monotonous)	2	18	90%
		No multi Skilling	2	16	80%
		No Challenge	2	16	80%
		Lack of Variety	3	18	90%
		No enthusiasm	3	16	80%
<b>12</b>	<b>Differential treatment</b>	Discrimination of Local and Foreign Workers	2	17	85%
		Discrimination in Wages	2	17	85%
		Discrimination in Welfare Facilities	2	17	85%
		Discrimination in Employment confirmation	3	17	85%
		Discrimination Among Male and Female Employees	3	17	85%
<b>13</b>	<b>Heavy Workload</b>	Overloaded	2	16	80%
		Difficulty in Performing Work	2	16	80%
<b>14</b>	<b>Poor relationship with co-workers</b>	Lack of Co-worker Support	2	17	85%
		Individual Orientation	2	16	80%
		No Team Work	2	16	80%
		Lack of Cooperation	2	15	75%
<b>15</b>	<b>Poor relationship</b>	Lack of Supervisory Support	2	16	80%
		High Task Orientation	3	17	85%

	<b>with supervisors</b>	Punishment Oriented	3	17	85%
		Fearful Relation	3	16	80%
		Blame Game	3	16	80%
<b>16</b>	<b>Lack of achievement recognition</b>	Monotonous Job	2	18	80%
		Low Level Innovation	2	18	90%
		Low Level Experimentation	2	18	90%
		No Recognition at Work	1	16	80%
<b>17</b>	<b>Lack of Supportive management</b>	Poor Support From Top Management	2	17	85%
		Lack of Involvement of Top Management	2	16	80%
		Neglect From Top Management	2	17	85%
<b>18</b>	<b>No Job description</b>	Confusing Job Description	2	15	75%
		Role Conflict	2	16	80%
		Lack of Information sharing	2	16	80%
		No Role Authority	3	16	80%
<b>19</b>	<b>Delay in employment confirmation</b>	Long Probation	2	15	80%
		Delay in Job Confirmation	2	16	80%
		Delay in Getting Full Wage	2	16	80%
		Delay in Getting Monetary Benefits	3	16	80%
<b>20</b>	<b>Safety</b>	Less Safety Facilities	2	18	90%
		Less Safety Equipments	2	17	85%
		No Standard Safety Equipments	2	17	85%
		Poor Safety Environment	1	17	85%
<b>21</b>	<b>Ergonomics Issues</b>	Continuous Standing	2	16	80%
		No option to Get Rest	2	17	85%
		Physical Illness	2	17	85%
		Stress and Strain	2	15	75%
		Dusty Environment	2	15	75%
		Strong Paint Smell Circulated	2	15	75%

The first dimension reflected from the study was the ‘Career/Promotion’ opportunity that an employee expects from the organization. The experts accepted 7 items, under 4 categories. Career Plan (80%), Career Opportunities (80%) and Career hope (80%) are the major categories identified by the experts in relation to employee attrition in the organization. Further categories like Level of Career Orientation (75%), also received better attention from the experts to identify reasons behind employee attrition in industries.

Followed by career promotion dimension the second factor reflected from the study was the ‘Reward Management’ Mechanism followed by the organization, whether it is employee appealing or not. The experts acknowledged 7 items under 4 categories in relation to employee attrition in the organization. Major category the experts given highest concern is the Salary/Wage (90%) and Bonus (90%) structure followed by the organization. Further other categories like Perks and Commission (75%), and other allowances (75%), also received good attention from the experts to identify causes behind employee attrition in industries.

The third dimension reflected from the study was the ‘Training and Development’ opportunity that an employee expects from the organization. The experts acknowledged 5 items under 2 categories. Opportunity for Professional Development (85%), and Opportunity for Personal Development (85%) are the major categories identified by the experts in relation to employee attrition in the organization.

The experts have given importance to the Management style followed by the organization in relation to employee attrition. Under the ‘Management Style’ dimension they acknowledged 7 items under 4 categories. Leadership Style (90%) followed by the organization is the major factor related to attrition.



Employee orientation (85%) (Concern for people) and Proper Work Orientation (80%) (Concern for the task) received the next level attention from the experts in relation to employee attrition. Similarly, the employee's expectation in relation to organizational support (75%) receives the closing attention in this factor which may lead to attrition in the organization.

Many employees expect a challenging and interesting work that induces better enthusiasm to come to work and be in the organization. Under the 'Insufficient Challenge' dimension the experts acknowledged 8 items under 4 categories. A work environment that support innovation (90%) and experimentation (90%) has received major attention from the experts in relation to employee attrition from the organization. Followed by that a work which give opportunity to engage in Variety Work (80%) and which provide Skill Enhancement Opportunities (80%) to the workers have identified by the experts in relation to employee attrition.

Every employee before he or she enters into the organization looks at the 'Condition of Service' offered by the company. Under the 'Condition of Service' dimension the experts acknowledged 18 items under 7 categories. Major factors in relation to attrition identified the experts include 'Terms and Conditions' (90%) and 'Rigid Rules and Regulations' (90%) followed by the organization. This condition of work develops a feeling of Detachment from Work (85%), feeling of Detachment from the Organization (85%) and Detachment from Colleagues (85%) in the organization. Experts opine that where there is a rigid condition of service at work there the employee's ends up with a Feeling of Insecurity (80%) and Lack of Interest (80%) to work in the organization

In the globalized era many organizations are moving away from rigid organizational climate to flexible organizational climate to attract and retain employees. The expert identified 'Flexibility in Working Hours' as one of the major dimensions in relation to attrition with 15 items under 5 categories. Rigid Working Hours (90%) and Long Working Hours (90%) was received major attention from the experts followed by Over Work (85%). The experts also given concern on the effect of Lack Rest (80%) and in an environment where there is Lack of Co-worker Support (80%), in relation employee's intention to leave.

The eighth dimension reflected from the study was the 'Work Condition' that an employee expects from the organization. The experts acknowledged 8 items under 4 categories. Issues on Physical Health (85%) are the major category identified by the experts in relation to employee attrition in the organization. Further categories like Long Standing Work (80%) where there is Lack of Opportunity to Take Rest (75%) and their contact with Hazardous Chemical Substance (75%), also received good attention from the experts to identify reasons behind employee attrition in industries.

The experts also identified issues related to the 'Travelling Facilities' extended to the employees of the organization, as an issue associated with employee attrition. The experts acknowledged 6 items under 3 categories. All the categories like Long Journey to Reach at Work (85%), No Transportation Facility from the Organization (85%), and No Frequent Public Transport Facility (85%) were obtained an equal weightage in relation to employee attrition or employee's intention to quit the organization.

The tenth dimension identified by the expert includes the 'Health Facilities' that an employee expects from the organization. The experts acknowledged 6 items, under 3 categories. No Medical Facility (85%), extended by the organization and there is total Neglect from the Management Part (85%), that to ensure better medical aid was received better thoughtfulness from the experts which may lead to employees high concerns and attrition. It is also pointed out that in such an environment if the employee has little access to medical facilities nearby viz., Long Distance to Access Medical Facilities (80%), also cause employee disappointment and leading to attrition.

The eleventh dimension reflected from the study was the 'Nature of Work' that satisfy an employee at work. The experts acknowledged 12 items under 5 categories. Repetitive Work and (90%), and Lack of Variety in Work (90%), are the major categories received better attention from the expert under this factor. The expert indicates that this work situation would lead to a condition where the employee feels they do have No Multi Skilling (85%), and No Challenge at Work (85%). It would finally lead to losing their Enthusiasm at work (80%).

The expert also pointed out the importance of organizational justice in relation to the feeling of human values at work. In relation to the dimension 'Differential Treatment' the experts identified 12 items under 5 categories which will lead to employee dissatisfaction and attrition. These categories include Discrimination of Local and Foreign Workers (85%), Discrimination in Wages (85%), Discrimination in Welfare Facilities (85%), Discrimination in Employment confirmation (85%), and Discrimination among Male and Female Employees (85%).

Heavy workload invites employee dissatisfaction. In relation to the dimension 'Heavy Workload' the experts identified 4 items under 2 categories which will lead to employees' dissatisfaction and attrition. These categories include Work Overload (80%) and Difficulty in Performing Work (80%) received good attention from the experts to identify the reasons behind employee attrition in the organization.

The fourteenth dimension reflected from the study was the 'Poor Relationship With Co-Workers', in relation to employee attrition in the organization. The experts acknowledged 8 items under 4 categories. An issue related to Lack of Co-worker Support (85%) is the major category identified by the experts in relation to employee attrition. Further categories like Individual Orientation (80%) where people less important to others and No Team Work (80%) received good attention from the experts to identify the reasons behind employee attrition in the organization. Lack of Cooperation (75%) at work is the resultant outcome of Poor Relationship with Co-Workers.

The fifteenth dimension reflected from the study was the 'Poor Relationship with Supervisors', in relation to employee attrition in the organization. The experts acknowledged 14 items under 5 categories. Issues related to High Task Orientation (85%) and Punishment Orientation (85%) were the major category identified by the experts in relation to employee attrition. Further categories like Lack of Supervisory Support (80%) and the Blame Game (80%) between Employees and Management, when mistakes happened were received good attention from the experts to identify the reasons behind employees' intention to leave from the organization. The Fearful Relationship (75%) created by the management among the employees is further the last category identified by the expert in relation to employee attrition.

The sixteenth dimension that influence business incubation center was 'Lack of Achievement Orientation. The experts identified 7 items under 4 sub categories of support. A work environment that support innovation (90%) and experimentation (90%) was received major attention from the experts in relation to employees interest to stay back in the organization. Followed by that a work which give No Recognition at Work (80%) and Monotonous Job (80%) was identified as the reasons behind employee attrition.

One of the major dimension stresses by the expert in this study includes the role of 'Supportive Management'. The experts acknowledged 6 items under 3 categories. Issues related to Poor Support from the Top Management (85%) and Neglect from the Top Management (85%) were the major categories identified by the experts in relation to employee attrition. Further categories like Lack of involvement of Top Management (80%) With the Employees Concerns was received good attention from the experts to identify the reasons behind the employee's intention to leave from the organization.

The eighteenth dimension reflected from the study was 'No Job Description', available to the workers leaving them more confused state at work. The experts acknowledged 9 items under 4 categories. Issues related to Role Conflict (80%) Lack of Role Authority (80%) and Lack of Information Sharing from Supervisors (80%) and top management were identified by the experts in relation to employees' dissatisfaction components. Further categories like Confusing Job description (75%) that leading to poor performance was also received good attention from the experts to identify the reasons behind the employee's intention to leave from the organization.

The nineteenth dimension reflected from the study was the 'Delay in Employment Confirmation, to the workers. The experts acknowledged 9 items under 4 categories. Issues related to Long Probation (80%), Delay in Job Confirmation (80%), Delay in Getting Full Wage (80%), and Delay in Getting Full Monetary Benefits (80%) were equally received good attention from the experts to categorize the reasons behind the employee's intention to leave from the organization.

The experts also identified issues related to the 'Safety Facilities' that extend to the employees of the organization, as an issue related employee attrition. The experts acknowledged 7 items under 4 categories. All the categories like Less Safety Facilities (85%), Less Safety Equipments (85%), No Standard Safety Equipments (85%) and Poor Safety Environment (85%), were obtained an equal weightage in relation to employee attrition or employee's intention to quit the organization.

The last dimension identified by the experts includes 'Ergonomics' issues. Though the employee's intention to leave an organization is related to many dimensions of ergonomics the expert identified 12 items under 6 categories. Issues related to Continuous Standing (85%), No option to Get Rest (85%) and Physical Illness (85%) were identified as the major ergonomics categories identified by the experts in relation to employee attrition. Further categories like Dusty Environment (75%) Strong Paint Smell (75%), and Stress and Strain (75%) related to the task and work environment was also received good attention from the experts to identify the reasons behind the employee's intention to leave from the organization.

#### **4. Discussion**

This particular study concentrates on identifying and fixing variables related to employee attrition. The study followed the Delphi technique to identify and fix the variables on employee attrition. The expert identifies 21 factors which have direct or indirect relation to employee attrition in the industry or their intention to leave. These factors can be segregated as organizational factors and individual factors. 21 factors thus identified by the experts include career promotion, rewards management, training and development, management styles, insufficient challenge related to work, condition of service, flexibility in working hours, work condition, health facilities, nature of work, differential treatment, heavy workload, poor relationship with co-workers, poor relationship with managers, lack of opportunities in relation to achievement recognition, lack of supportive management, no job description, delay in employment confirmation, safety and ergonomics issues.

Among the 'career promotion' issues the expert identifies a major category as 'career hope' among the employees. When employees start work in an organization they do have the expectation of 'how I will be getting promoted' in the coming days viz., a plan of 'continuous career opportunities', if they stay back in the organization. In order to get the credibility from employees the organization needs to have a better career plan and career orientation that facilitate better career development opportunities. Any failure to show such credible career path may lead to dissatisfaction among the employees and it may intern lead them to search for better career option in other companies.

As everyone aware the influence of 'compensation packages on employees', decision to stay back or not, the experts identified 'reward management system' as the second factor in relation to employee attrition in this particular study. Higher the wage an employee receives from the organization, higher the probability for employee retention. It is pointed out by the experts that especially in developing and underdeveloped countries, compensation package has high influence on employees decision to stay or search for other employment. Further, a company even when running with profit does not make provision of bonus and other fringe benefits obviously invites frustration among employees. The experts highly opined that factors in correlation with reward management like wage, fringe benefits, perks and commissions also may influence an employee's decision to leave the organization.

The newcomers will join an organization with countless expectations. They look upon opportunities for their 'professional and personal development' in an organization which facilitate better career opportunities. Higher responsibilities require higher order skills to extend the services. A poor training and development prospects in an organization that does not guarantee employees professional and personal development, will cultivate disappointment among the employees and it will lead to the employee's decision to look for better opportunities outside the organization.

The 'leadership and the management style' followed by the organization have a high notion on employees' confidence and 'continuity decision' in the organization. The workers expect a supportive leadership style which provides better work orientation and employee orientation for effective adjustment with task, organizations and co-workers. The management style ought to balance the task and concern of employees in an effective way. High concern for the task and low concern for the people will lead to employee dissatisfaction. High task orientation and low concern on employee relationship in an organization will lead to employee discontent, and lack of personal and professional adjustment. It will lead to the employee's decision to look for better opportunities outside the organization

One of the work related factor employees look at the company include a challenging work environment that necessitates higher skills and mental abilities to accomplish the task. Many employees expect a 'variety and challenge' in their day to day tasks in correlation with 'achievement and recognition' need. These act as motivation among them to come to organizations. In addition to that the employees expect innovation and experimentation opportunities that incorporate of their ideas and suggestions into the better accomplishment of the task. It is indicated by the experts that when employee's needs related to challenging and varied environment won't meet with or they are forced to engage in monotonous and repetitive work, their intention to leave the company will be at a higher level.

Among several factors identified by the experts the 'terms and conditions' of services followed by the organization is well correlated to 'employee disengagement' from the work and their 'intention to leave'. Employees observe several terms and condition as and when they start working in the organization. They observe closely 'what is promised' by the organization and 'what they followed' after that. Detection of any discrepancy between these two aspects viz., 'promise and practice' developed a kind of displeasure with the conditions of service. They feel a 'lack of trust and confidence' on management, which intern may lead to 'lack of concern' attitude upon the organization and start detachment from work. The difference in the terms and conditions thus develops a 'feeling of insecurity'. Further if the organization follows 'rigid rules and regulation' to ensure their hidden terms at work, it intensifies their displeasure leading to intention to search for alternative jobs or intention to quit.

The other organizational factor which influences attrition in the organization is in relation to 'flexible working hours'. Longer the working hours higher the physical demand employees have to put at work. Long working hours without rest will be leading high occupational stress also. The employees are expected some rest and leisure in between tasks which support them to be fresh and gain their work focus. Absence of such a work environment ultimately leading them to be absent at work, search a new job or quit the job.

It is pointed elsewhere that long standing work and long hours of work will leads to high occupational physical and mental stress among the employees. Employees expect a congenial 'working environment free of hazards' ensuring better safety and security that support good workflow and effective task engagement. In the presence of a displeased work environment, the employees feel disengaged and detached. If the working conditions expose employees to a hazardous chemical substance or handling hazardous chemical substances (undisclosed) and employees' frustration will be on higher side and giving priority to their life, they will leave the organization.

It has been pointed out by the experts that the difficulties faced by the employees in relation to 'transportation' via, coming from their respective towns and cities where the public transportation facilities are less may cause an employee's decision to search for new job opportunities. Long journey from their home to work will develop tiredness and frustration among the employees. Thus the availability of transport is a factor which may lead to employee's intention to leave from the organization and lead to attrition at work.

Being exposed to an industrial environment, majority employee expects a work environment which is accessible to 'health and medical facilities'. It is the responsibility of organizational management to ensure such facilities for employee's health and productivity. If the 'management neglects' such facilities in the organization premises develop a feeling of insecurity and low level safety among employees. Add on to this point, in case the employees have to travel long distance to access medical facilities, also create frustration. Thus making provision of health facilities is an importance factor that closely knit with employee attrition at work.

Majority expert has opined that how far the 'nature of work' develops interest among the workers that decreases the level attrition in the organization. Opportunities for multiskilling, opportunities to engage in a variety of tasks, challenging work environment that provides more learning opportunities will develop enthusiasm among workers. The workers expect a good career option and that facilitate moving ahead towards higher responsibilities. In the absence of any of these factors indicate that the work is more of monotonous/repetitive in nature and there are fewer opportunities for employees to learn grow and develop. Thus 'nature of work' is an importance factor that closely knit with employee attrition at work.

One of the major factors identified by the expert in correlation with attrition further includes 'organizational injustice'. Where there is feeling of inequality and injustice, among workers, there is the chance of the employee's intention to leave the organization. As we aware, many organizations are nowadays working with employees from different countries. The organization's workforce is more of global rather than local to take ahead the future business plans. Care should be taken that there won't be any ill feeling about the 'treatment' followed by the organization on wage and welfare, fringe benefits, employee confirmation, career promotion, overtime like factors, which will develop a feeling of 'differential treatment' among the workers. In such cases, they may start seeking opportunities for switching their jobs.

As indicated in one of the observations above, if the workers are exposed to heavy 'work load', they may feel that the task allocated to them is physically taxing and difficult to cope up with. The role overload has a direct link to occupational stress. Employees may start looking at other jobs in case their skills and abilities cannot match up with the target or required task varied away from the job description prearranged by the organization.

The workers in the organization except that there should be a congenial 'working relationship with the workers' with whom they may engage with. Many work tasks envisage the importance of information sharing. Such departments in organizations where there is the lack of cooperation between workers at work, the employees may find it difficult to accomplish the task in time and it generates poor work

records. The poor work records generate lack of appreciation from their supervisors and the probability to get career enhancement or promotion will be at stake. Further, poor relationship with the co-worker intern develops low level motivation between them to work as a team. This scenario will lead to employee disengagement and attrition.

Just like the poor relationship with the co-workers, the 'poor relationship with the supervisors' also is one of the factors leading to employee attrition. In many organizations, promotion and advancement opportunities for the workers are based on the 'report' given by the employees on workers' performance. Poor level relationship with the supervisors thus offers seldom an opportunity to the employees in their 'career advancement' in the organization. Furthermore a poor relationship with the supervisors may give 'taxing assignments' that leave 'punitive measures' in relation to the task non-accomplishment. These issues further lead to employee's intention to leave or absence from the work.

One of the major factors the expert identified in this study includes 'achievement recognition' opportunities that are extended by the organization to employees. Where the work is monotonous and repetitive, the employee does not have any opportunities for enhancement of their skills. Their ideas are not well accepted into at work. They may feel that there are no opportunities for recognitions at work. The work culture followed by the organization does not ensure risk taking experimentation and innovation. Such dissatisfied employees' may further look out better job opportunities outside the organization.

The next factor identified by the expert includes lack of organizational support. Lack of support or neglect from the top management, in their achievement may develop high level dissatisfaction among employee. The lack of involvement and commitment of top management on employee's adjustment and growth may lead to employee disengagement and intention to leave. On the other hand, a supportive management will lead to better individual satisfaction, organization trust and strong work culture. Top management support in employee welfare and work is a factor thus closely knit with employee attrition.

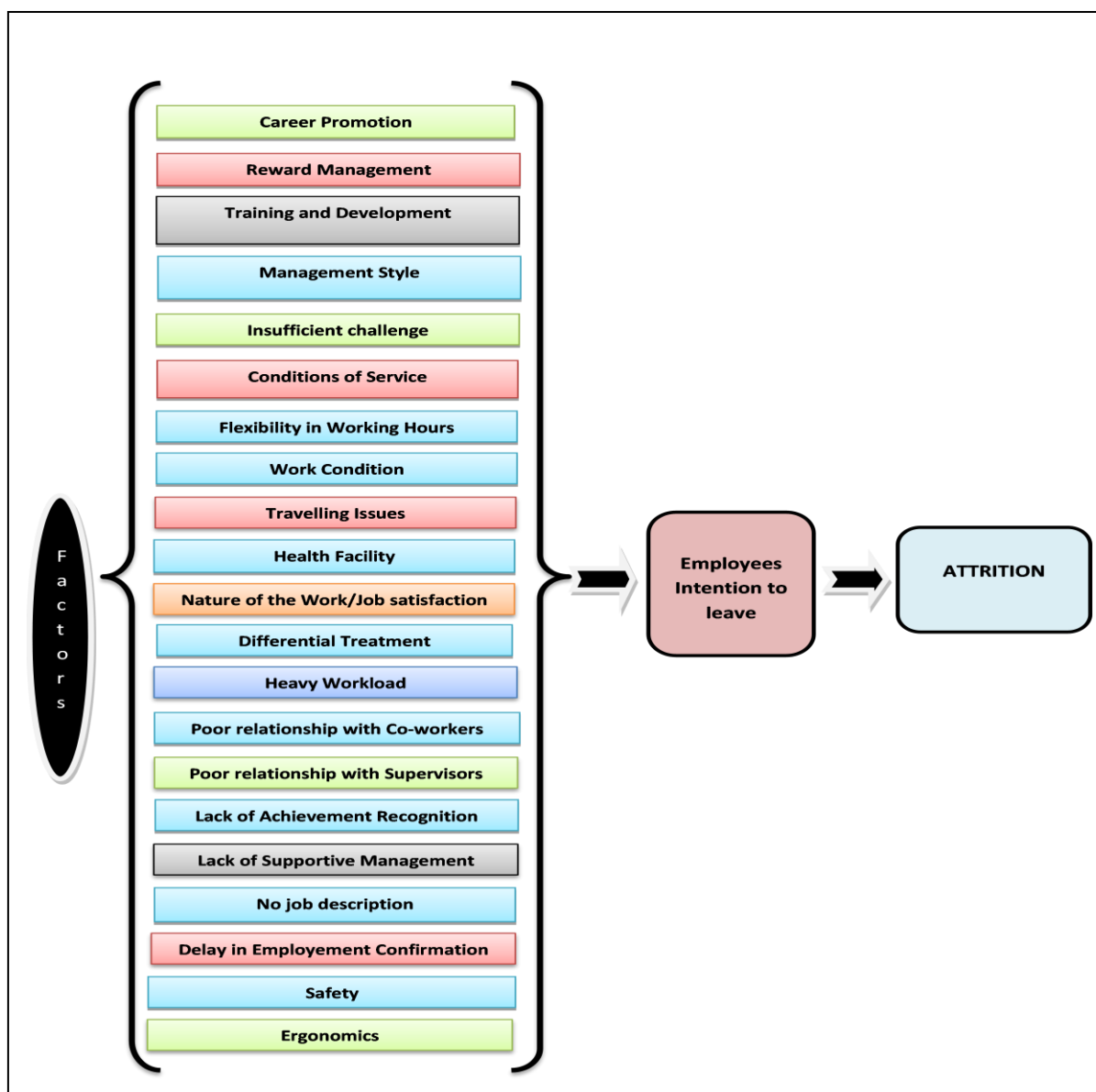
It is very important that the employee should be well oriented on the work they are working. Any confusion regarding the 'nature of work and job description' develops high role conflict and role stress among workers. Lack of information sharing, lack of socialization and role orientation may lead to low level information regarding the work. It may cause serious errors and mistakes at work. Further to that, the poor job description may lead to role conflict. Poor socialization and job description contribute to employee disengagement and further influence their intention to leave the organization.

Majority organization follows a reasonable probation period. Usually it will take six months to one year. The employees expect that a state of temporariness will be converted into permanent status soon after the provision period. In case of any delay in the enrollment of probationary employee's name in the muster roll or due to any vicious act from the top management, may invite lack of respect, lack of trust and unhappiness among employee. A delay in getting their confirmation also makes the employee un-entitled to full compensation package and other fringe benefit. This situation leads to employee's high level disengagement from the work and develop intention to leave.

One of the major factors identified by the experts that related to employee attrition in the organization is poor safety facilities extended to the workers which leads to unsafe working conditions. The categories identified by the expert by the expert include less safety facilities, no safety equipments or non-standard equipments and the poor safety environment. When the organization cannot satisfy the safety environment that is expected by employees it is quite natural that employees may leave the organization and attrition is the final result.

The last but not least factor identified by the expert includes the factor related to 'ergonomics issues'. The categories identified under ergonomics in relation to employee attrition include 'long standing posture' of the work, 'no option gets proper rest' in between the work, high level demand of the 'movement of the body' related to work leading to physical illness. Further chemical mischance, dusty environment etc., also leading to employees poor health condition to engage effectively in their tasks these factors does lead to employee attrition at work.

**Figure 1. Model: Factors Related To Attrition**



## 5. Implication

This qualitative research has paved better way to comprehend the factors closely linked to and categories in relation to the major theme, employee's intention to leave, abscond from the organization or attrition. All these factors identified have close affinity with the work culture followed by the organization. The question of why the workers leave from the organization have high managerial consequences, as such the

factors identified by the experts closely knit with the 'management values, organizational values, organizational culture and a working environment, which ignore human concerns in the organization. The government has made strict laws on factory management . While this study direct a policy level interventions, that ensure safe and healthy working environment for employees, which is widely acknowledged by the companies but poorly followed. A comprehensive identification of the variables in this research, need to get a wider awareness to curb the attrition, absconding or employee's intention to leave from the organization. Last but not least, these factors identified in this research to be studied in correlation to job hopping, perceived alternative employment opportunities, absconding or switch over intention, through extensive quantitative research for generalisability of observations. .

## 6. Conclusion

This particular research was conducted to analyze the factors and categories that contribute to employee attrition in the aerospace industry, with specific reference to the aerospace industry in Malaysia. Even though many models and literature related to employee attrition available in the research arena, contextualizing the factors to aerospace industry to Malaysian context is less researched into. The study followed qualitative research method specifically Delphi technique to arrive at the observations. The observations based on the expert opinion extend better understanding on 21 organizational and individual factors that contribute keenly to employee attrition in the aerospace industry in Malaysia. This study thus supports to have an extensive study with the support of quantitative research to prove the variables accountability and generalization in the aerospace sector chosen for the study to have effective strategic interventions.

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